



Philosophical Transactions

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Mettal, and presently glides it along with it self to the Springs orifice; and from the moment of the Sulphur and Acide Salt's meeting and contact begins a mutual action and reaction upon one another which never ceateth, till both are imperceptibly spent, and blended into a new Body, which then the water lets fall, and we call an Earth, Ochre, or Sediment: After the production of which Ochre, the Medicinal vertues of the immature Sulphur is lockt up into the inseparable embraces of the Acid Salt, and so is lost, or at least disappears. But this mutual action and reaction may last, till the Waters issue out of the Earth, and for some small time longer, and so long their Medical vertues are to be imparted, and no longer.

This, Sir, is the Hypothesis of *Tachenius* (if I rightly apprehend him) which I send, not to have it Justle out the more received one, or any other that may be proposed; but that it may have its Tryall, and accordingly may live or dye. I could alledge more in its behalf, especially in the particular of such a Body, as we commonly call an *Ochre*; resulting from divers Experiments of Vitriol: but I have trespassed too much already to hope for pardon from any, but &c.

An Accomp of two Books

I. *GUAGING EPITOMISED*, by MICHAEL DARY. London, Printed by W. Godbid 1669. upon one folio page.

A Table of Squares and Cubes is of general use, but more particularly in *Guaging*, for taking away *Proportional* work in computing the Contents of Brewers Tuns from inch to inch, or by as great portions as you please; or for making th: Tables of Gallon-measure for M^r. *Oughtred's Guage-Rod*: Yea each kind of Table doth much expedite the *Guaging* of Caske, as may be seen in this Printed Sheet of Mr *Dary*, wherein he supposeth, that a Beer or Ale-Gallon contains (according to the late Establishment by Law) 282. Cubical inches; a Wine-Gallon, according to custom and Experiment, 281. Cubical Inches: And he takes an Example (of a *Canary P.p.*) whose diameter at the *Bung* } is { 32' inches, and Length 44 inches.
Head } 22,

And

And if you suppose the Heads of such a Cask to be two Plains
erect to the Axis, and alike remote from the Center, cutting
off both ends of the figure produced, then, if the middle fru-
stum, so intercepted, be computed as

The Solid Zone	a Sphaeroid	126 $\frac{1}{4}$
of	a Parabolical	115 $\frac{1}{2}$
	Spindle.	
	Cones..	Of the same
Trunc.	two Parabolical	base and
	Conoids	height
		110 $\frac{1}{4}$
		112 $\frac{1}{4}$

the Method of Calculation being very easy by either sort of Tables, and of great affinity in all these figures. And whereas the Learned have commonly supposed, Cask to be the midle frusta of Spheroids, and given Rules accordingly for Gaaging them, those suppositions, as Vintners and others upon experience assert, are found too much to enlarge the Capacity, so that a Canary Pipe, that is reputed to hold about 126.gallons, upon Experiment hath been found to contain but 116.gallons: And to determine what figure is most proper to be admitted, eugh to be built upon such an Experiment as this;

Conceive a Caske to lye upon an Horizontal Plain with its Axis paralel thereto; and Perpendiculars on the outside of the smooth board's of the Cask to fall, from the Head, Boung, and some intermediate point between, upon the Plain or Floore; and in like manner the axis to be designed: Then find out such a curved line of some property, that may pass thorough the said Points, which conceive to have a rotation about the Axis-line: the round solid so made may be taken to represent the Cask; and in the Writings of *Geometers* divers Curves are to be found, that are capable of passing through such Points and their round Solids measured. But if the Reader think this too nice and troublesome, and that the *Spheroid* way is too great, and the *Parabolick* spindle too little, then the Author gives scope enough between; showing how to contrive such Rules, as shall best agree with Experience.

II. HISTOIRE NATURELLE DES ANIMAUX
PLANTES ET MINERAUX, qui entrent dans
la Composition de la THERIAQUE D'ANDROMA-
C H U S; par M. Charas In 12. A Paris.

AS there are above 60 sorts of different druggs, which are ingredients of this no less difficult than famous and usefull Medicine, which was invented by *Andromachus*, Physician to *Nero*; and as those drugs are subject to be sophisticated, and require different preparations, so there are few men, that are sufficiently skill'd to chuse aright all those ingredients, or dextrous and patient enough to prepare them well. The Author of this Book treats of this celebrated medicament, and not only teacheth the way of composing it, but intersperseth many not in considerable remarks touching the nature and vertues of all the Druggs, which compose it.

He is of opinion, that commonly there are committed many faults in preparing the Ingredients, of which the Theriack is made up. E. g. When the Vipers are prepared, the custom is to whip them; thereby to make all the venom go to the head, which is cut off when they are sufficiently enraged. They also boile the flesh, thereby to draw forth what venomousness may yet rest therein, and their bones are cast away as useless. Whereas he saith, that it being by Experience evident, that all the venom of the Viper is in his Teeth and Jaws, that whipping is not only to no purpose, but also dangerous, in regard that the Spirits being chafed and irritated may beget venom in the body, where was none. He asserts also, that the water, in which the viper-flesh is boyled, carryes away all the vertue; and that the bones that are thrown away are no less useful, than the flesh itself.

He takes further notice, that *Opium* hath not those ill qualities, which many ascribe to it, who teach, that it suffocateth the natural heat, and that there need no more than 3. graines to dispatch the lustiest man: whereas he assures, that himself hath taken 6 graines of it without having been more stupify'd by it, than he used to be; and that instead of being debilitated, he hath found himself strengthen'd by it. He adds, that he knows a man of a constitution delicate enough, who hath taken of it to 30. grains, and yet not found any troublesome accident upon it; on the contrary that the Patient hath found himself so well after it, that he continued to take the same dose twice or thrice a week.

He observes also, that whereas it hath been disputed, what might cause the difference of Colour in the White and Black Pepper, some believing, that Pepper gathered before it was ripe, looked white, but became black in ripening; others pretending, that as the same Vine-stocks, which produce white grapes, do not bear black ones, so they are different plants; that bear Pepper of different colour; our Author affirms, that this diversity of Colours proceeds thence, that the black Pepper is covered by its skin, which the white is bared of &c.

E R R A T A in Numb. 51.

P^{Ag.} 1028. l. 7. r. by a bank of *ibid.* l. 9. r. preserve this bank. p 1039. l. 33. r. bottles well sealed up.

Printed by T. N. for John Martyn Printer to the Royal Society, and are to be sold at the Bell a little without Temple-Bar, 1669.